

Save America's Treasures  
Heritage Inscriptions  
Third Interim Report, June 1, 2007

Award Number: ST-00-05-0007-05

Awarded Institution Name: Montana State University - Billings

First Interim Report: June 1, 2006

Second Interim Report: December 1, 2006

Third Interim Report: June 1, 2007

Period Covered by the Report: December 1, 2006 to May 31, 2007

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## **Performance Description**

### **a. What is the purpose of the project?**

The purpose of this project is to create a digital collection of historic signatures, dates and artwork spanning the time period from the 1800's to the present. The data is being organized into a searchable database, represented through web page access and supplemented with physical reproductions obtained from non-contact three-dimensional scanning technology.

The project also includes the identification and appropriate documentation of previously undocumented sites through the Montana, Wyoming, North Dakota and South Dakota State Historic Preservation Offices.

### **b. What activities or services have been carried out with project funds to support the purpose of the project? *If the project schedule has not been met, explain why and describe the steps being taken to return the project to its proposed schedule of completion.***

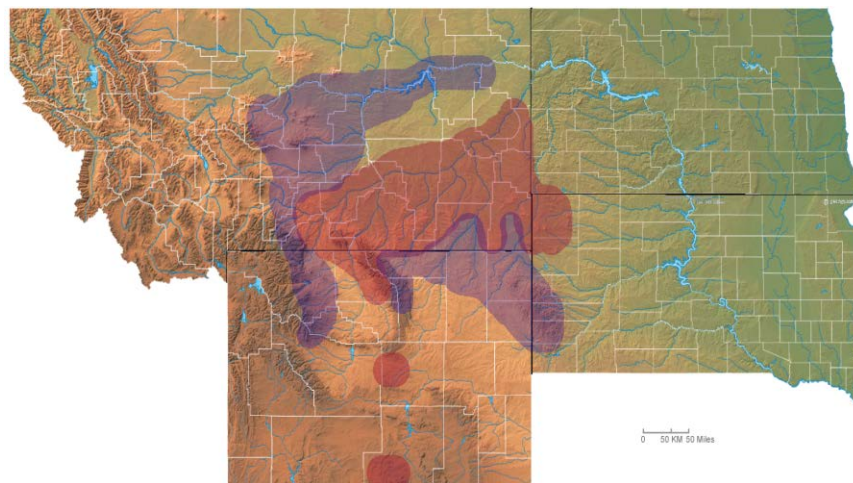
#### **Field Surveying Activities**

Survey activities have continued throughout the third period of the grant. As the project has received more publicity, more volunteers have come forward not only to assist in survey activities, but to identify sites relevant to the project.

Additional survey information is now also being incorporated from supplementary sources, such as cultural resource management firms and historic consortiums.

During the (primarily) winter months covered by this stage of the grant, outings to sites in Montana, and northern Wyoming continue to provide a great deal of data to be processed. The data includes field notes, digital images, GPS data and three-dimensional scan files.

Basic training in the use of GPS, field communication devices, and survey techniques is a standard for students and volunteers and every survey session is preceded by a safety orientation.



**Red shade showing areas of current survey concentration – Purple represents area of following focus.**

Field surveying accounts for a considerable amount of time and representative match for the project. To date almost two thousand hours of documented time has been dedicated to the venture by grant overseers, students and volunteers.

### Technological Activities

All technologies including Field radios, Global Positioning System (GPS), Surveying and Digital Imaging Technologies continue to function normally.

Together, all technologies are functioning at optimal performance and interlock to comprise the digital coverage originally proposed.

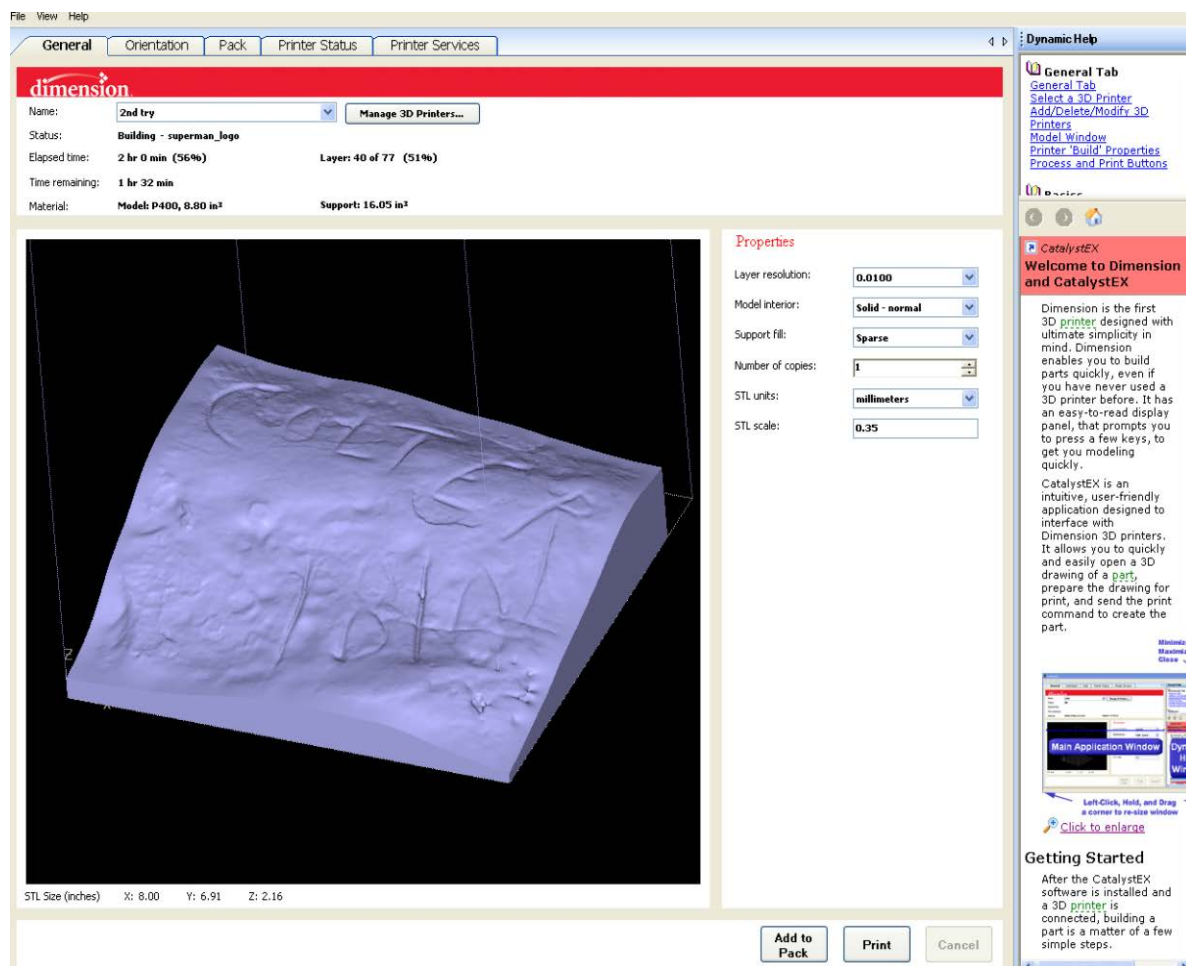


Image capture from 3D printing software showing a 3D scan of the Colter 1810 inscription

New file translation techniques have facilitated a relatively easy transition from the three-dimensional scanner to the three-dimensional printer and have positioned us to output full-sized models of significant sites in the fall as funded in the grant.

The database continues to grow with over 100 sites and thousands of inscriptions documented. The initial web page has also been created and continues to evolve. The web page will open for public access in the Fall of 2007.

### Collaboration and Consultation

While ongoing activities with government agencies, cultural resource management firms and private landowners continue to generate a constant dialog about the project, specific activities occurred that are relevant to the successful completion of the grant.

A recent article in the Billings Gazette has generated a tremendous amount of feedback, leads and support. The article can be accessed at:

<http://www.billingsgazette.net/articles/2007/05/05/features/life/20-rock.txt>

Of particular note are comments from the public showing great support for the project concept.

Two articles were also included that elaborated on research occurring as an outcome of the project. These can be accessed at:

<http://www.billingsgazette.net/articles/2007/05/05/features/life/35-inscription.txt>

and

<http://www.billingsgazette.net/articles/2007/05/05/features/life/35-inscription.txt>

Conversations continue to occur with private landowners concerning significant inscriptions on the northern plains. These sites reinforce the belief that distributions of historic and cultural resources are ubiquitous on the northern plains.

One privately held site is so significant that a meeting will be chaired in June with John Keck, National Park Service, Montana and Wyoming coordinator to continue discussing further protection and preservation of the site. The site in question has well documented inscriptions of *M Lisa 1807* and *Colter 1810*.

In April, Tim Urbaniak met Dr. Jim Keiser, a well-known prehistoric rock art archaeologist regarding historic sites. Due to the continued coexistence between historic and prehistoric sites, many rock art researchers have valuable knowledge regarding historic inscriptions, but rarely elaborate or publish regarding them. The discussion and support materials provided by Dr. Kaiser to our project have identified significant sites in Wyoming.

In June, the American Rock Art Research Association (ARARA) will hold their national meeting in Billings, Montana. This should result in further valuable information and contacts.

### **c. What are the outputs of the project activities or services to support the purpose of the project? Explain what documentation is used to report the outputs.**

We continue to receive requests to present to groups regarding the scope of the project and the technologies used. During this reporting period we have

- Presented to the local Billings, Montana Chamber of Commerce (over 100 attended)

- Presented to the community as an activity for Montana Archaeology Week (over 40 attended)

Presented at the Fall 2006 Plains Anthropological Society Conference in Topeka, KS  
(PowerPoint presentations from these occasions are on file.)

We continue to gather an abundance of raw data, which is a significant project resource. The current files are organized by folder, structure and reference. We continue to transition the information into a usable, interactive format. This process has been the main focus for this stage of the project and now serves as a template for inputting and archiving data.

	A	B	C	D	E	F	G	H	I	J
1	<b>Heritage Inscription List</b>									
	Site Name: Sheridan Butte			Site Number:			Picto/Petro Present? Perhaps on the south end of butte			
2	Year	Associated Name	Other Inscription	Non-Associated Date	Description of Figure	Figure Date	Photo on File?	Suitable for 3D Scanning?	3D Scan on File	Notes
3	1911	C W Battreau	Co. G						Yes	
4	1876	J Bailey	Co. C 6 Inf June 21						Yes	A couple of days before the Custer E
5		J A Kelly							Yes	Same date as Bailey?
6					vertical hook with a 't' through it					
7										
8										
9			...on South end of butte							
10	1818									faint
11			tic-tac-toe pattern with x's winning							
12	1914	Kile								
13		S K								
14	1969									
15		A B								
16		B K								
17		I M L								
18		Mike								
19		Trevor Plek								
20	1971	Peger								
21	1820	A S			1820 or 1890?			Yes		
22	1909	Mrs. O. A. Dickson								
23		W E Dickson								
24		T A B								
25		J N								
26	1941	E K L K								Inside a heart
27		Kaci								
28	1967	LUM								
29		Trask								
30		Luke								
31		J P								
32		JLA								
33	1910	O E A								circle has eyes of .22 shells
34		D B + G T								
35					deep radial groove pattern					
36		J.E.T.								
37		O H								
38		E A								
39	1983	J. A.								
40	1991	A T								
41	1929									Name too faint to make out

**d. What are the outcomes of the project activities or services to support the purpose of the project? Explain what documentation is used to report the outcomes.**

A significant outcome of the grant is the linkages being established between agencies and institutions involved in the archiving of cultural material. Being able to contribute to the official historical record is a noteworthy outcome. Documentation of this outcome is in the form of official State Historic Preservation Office (SHPO) site forms.

Another result is that awareness of the importance and recognized significance of these inscriptions is growing. The primary documentation for these contacts is email communication and commentary feedback from article readers and presentation attendees.

An outcome that continues to be of great importance and significance to the University is to engage students and the public. During this last reporting period many students stepped forward to contribute to record keeping and surveying. Students also continue to request independent study classes to be able to more formally contribute to the project.

Incorporating the technologies used for the project into the curriculum is also an outcome of the grant. Interaction with the 3D Scanner and the 3D Printer has contributed to the quality and expertise of our graduates, which will ultimately contribute to the professionalism of the regional workforce. Polymer models and academic documentation serve as evidence of this interaction.

The interaction with the 3D scanner (point cloud generator) has also contributed to an interest of MSU-Billings in starting an Associates of Applied Science in Geographic Information Systems (GIS). Currently grants are being written that would facilitate the purchase of a survey-level point cloud generator (as made by Leica). Obtaining this device through additional grants could lead to unprecedented documentation of these sites by digitizing not only the inscriptions, but the very landscape where they occur.

#### **e. Report other results of the project activities.**

Even before public access of our material has occurred, interest in using our records and outcomes as research resources has already begun. The interest in the inscriptions and the interest in the technological aspects of the project have blossomed exponentially.

Demonstration of the technologies being used for state and national Senators and Members of Congress has strengthened support for preserving not only these, but all regional cultural resources and has greatly enhanced the perception of Montana State University – Billings as a regional center for cultural resources and applied research.

#### **f. Additional comments/anecdotal information.**

Tim Urbaniak and Dr. Tom Rust are collaborating on a proposed book detailing these cultural resources. We are currently outlining the topics and sites to be covered.

Many site leads and property invitations also continue. In general, people are very willing to share stories about the stone inscriptions.

This project is on track, continues to be exciting and is resulting in a new resource as projected!

### **3. Certification**

In submitting this report, I certify that all of the information is true and correct to the best of my knowledge.

Name and title of the person submitting the report and date of submission:

Tim Urbaniak                      Archaeology Field Team Director                      5-29-07